

## **REMARKS**

In accordance with the foregoing, claims 4, 10 and 17 have been amended. Claims 4, 10, 17 and 32-49 are pending and under consideration. No new matter is included in this Amendment.

### **"New Matter" Objection:**

At page 2 of the Office Action, the Examiner objects to claim 17, alleging that new matter was introduced by reciting that a holographic optical element was arranged at an acute angle with respect to one of the first and second image sources. The Examiner correctly points out that claim 17, as previously amended, does not read on the elected species; however, the recitation of a holographic optical element being at an acute angle with respect to one of the first and second image sources is fully supported by FIG. 3 and is therefore not new matter. Claim 17 has been amended to correctly read on the elected species. It is respectfully requested that the "new matter" objection be withdrawn.

### **The 35 U.S.C. §112, First Paragraph Rejection:**

At page 3 of the Office Action, claims 17, 34, 37, 40, 43, 46 and 49 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Since the Examiner has not provided any detail regarding the rejection of claims 34, 37, 40, 43, 46 and 49, it is presumed that such claims are rejected only because of their dependency on claim 17. As pointed out above, claim 17 has been amended in the present Office Action to read on the elected species of FIG. 2B (initially identified as FIG. 2A). It is respectfully requested that this rejection be withdrawn.

### **The 35 U.S.C. §103(a) Rejection:**

At page 3 of the Office Action, claims 4, 10, 17 and 32-[49] are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,782,547 to Machtig et al. in view of Japanese patent JP411326822A to Hiroshi.

Regarding claims 4, 10 and 17, the Examiner refers particularly to an embodiment described in FIG. 12, of Machtig et al. According to FIG. 12 of Machtig et al., background image display 120 and spatial object display 120, first and second image sources, are arranged at right angles to each other. Claims 4 and 17 have been amended as set forth above to recite that the first and second image sources are arranged inline and claim 10 has been amended to recite that the first and second images are displayed inline with each other at the image source.

In FIG. 12, Machtig et al. disclose a single beam splitter 106, first and second Fresnel lenses, 108 and 104, and a first surface mirror 108. In FIG. 10, Machtig et al. disclose inline image sources 100 and 120, a partially transparent mirror 106, a surface mirror 102 and a first Fresnel lens 108. As claimed, for example, in claim 4, the present invention comprises first and second beam splitters and a holographic optical element having an aspheric lens function. Although the embodiments of FIGS. 10 and 12 of Machtig et al. appear to achieve a similar result as the present invention, Machtig et al. achieve such result with a substantially different apparatus.

The Examiner admits that Machtig et al. does not disclose a holographic optical element and that the holographic optical element has an aspherical lens function. The Examiner alleges that Hiroshi is in the same field of endeavor and teaches an image display device wherein a reflective holographic element 10 having an aspherical lens function is used with a beam splitter (7) to converge the image light to the desired location and to introduce aberrations correction to the display device. The Examiner asserts that it would have been obvious for a person of ordinary skill in the art to modify the elements of the display device of Machtig et al. to incorporate the structural arrangement of Hiroshi for the benefit of providing a more compact design for the display device. However, the Examiner has not supported such assertion with any technical analysis concerning which elements of the apparatus of Machtig et al. would be removed and which elements of the apparatus of Hiroshi would be inserted and why the person of ordinary skill in the art would be motivated by the references to make such element substitutions. According to the abstract to which the Examiner refers, Hiroshi suggests miniaturizing a device by providing a wedge beam splitter. The Examiner has not shown how such wedge beam splitter would be useable in the apparatus of Machtig et al. to arrive at the present invention. There is no suggestion in the abstract of Hiroshi that the Lippman volume hologram 10 contributes to miniaturization of the device. Thus, the Examiner has not demonstrated a motivation to combine the references required in a rejection under 35 U.S.C. §103(a).

Claims 10 and 17 are deemed to be patentable at least for similar reasons set forth above regarding claim 4.

Claims 35-37 are deemed to be patentable at least for similar reasons set forth above regarding claims 4, 10 and 17, respectively.

Regarding claims 32-34, the Examiner asserts "[h]owever recording optical element as holographic optical element is rather common practice in the art, for one thing the nature of the holographic optical element provides more precise optical selectivity so that the optical function based on the selectivity will be more accurate." Based on this assertion, the Examiner concludes that such modification would have been obvious to one skilled in the art. The Examiner appears to be taking Official Notice of something, however, the exact subject matter of the Official Notice is unclear. The Examiner is respectfully requested to clearly state the facts of which the Examiner is taking Official Notice and then state how these facts relate to the invention as claimed. Applicants further request that the Examiner provide a reference in support of the facts of which the Examiner is taking Official Notice as required by MPEP §2144.03C.

Claims 38, 39 and 40 are deemed to be patentable at least for similar reasons set forth above regarding claim 4, 10 and 17, respectively.

Regarding claims 41, 42 and 43, the question is not whether the first image reflected onto the second space is brighter than a black background, the question is whether the first image is brighter than the second image transmitted onto the first space. A black background displays no image. The black background as disclosed in col. 9 appears to be a feature which is in addition to the first and second images as recited in claims 41, 42 and 43.

Claims 44, 45 and 46 are deemed to be patentable at least for similar reasons set forth above regarding claims 4, 10 and 17, respectively.

Claims 47, 48 and 49 are deemed to be patentable at least for similar reasons set forth above regarding claims 4, 10 and 17, respectively.

**Conclusion:**

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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